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**DOCKET**

**07-AFC-6**

DATE JAN 30 2009

RECD. JAN 30 2009

**STATE OF CALIFORNIA**

**State Energy Resources Conservation and Development Commission**

In the Matter of:

CARLSBAD ENERGY CENTER PROJECT )

) Docket No. 07-AFC-6

) COMMENTS ON THE  
) PRELIMINARY STAFF  
ASSESSMENT

\_\_\_\_\_) )  
  
The Power of Vision respectfully submits comments on the Preliminary Staff Assessment for the Carlsbad Energy Center Project.

DATED: January 30, 2009

Julie Baker & Arnold Roe

Julie Baker & Arnold Roe, Ph.D.,

STATE OF CALIFORNIA

State Energy Resources Conservation and Development Commission

In the Matter of: )  
CARLSBAD ENERGY CENTER PROJECT ) Docket No. 07-AFC-6  
\_\_\_\_\_) )

PROOF OF SERVICE

I, Julie Baker, declare that on January 30, 2009, I deposited copies of the attached comments on the CEC Preliminary Staff Assessment on the Carlsbad Energy Center Project by POWER OF VISION in the United States mail at Carlsbad, California, with first class postage thereon fully prepaid and addressed to the following:

CALIFORNIA ENERGY COMMISSION  
Attn: Docket No. 07-AFC-6  
1516 Ninth Street, MS-15  
Sacramento, CA 95814-5512

And via email to:

<a href="mailto:docket@energy.state.ca.us">docket@energy.state.ca.us</a>	<a href="mailto:David.Lloyd@nrgenergy.com">David.Lloyd@nrgenergy.com</a>
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<a href="mailto:allanori@comcast.net">allanori@comcast.net</a>	<a href="mailto:e-recipient@caiso.com">e-recipient@caiso.com</a>
<a href="mailto:jgaru@ci.carlsbad.ca.us">jgaru@ci.carlsbad.ca.us</a>	<a href="mailto:rball@ci.carlsbad.ca.us">rball@ci.carlsbad.ca.us</a>
<a href="mailto:gsmith@adamsbroadwell.com">gsmith@adamsbroadwell.com</a>	<a href="mailto:wrostov@earthjustice.org">wrostov@earthjustice.org</a>
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Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Julie Baker  
Julie Baker

# Power of Vision

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Thursday, January 29, 2009

Mike Monasmith  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814-5512

Re: Carlsbad Energy Center project  
Docket #: 07-AFC-6

Dear Mr. Monasmith:

Please find attached comments from Intervenor Power of Vision regarding the Preliminary Staff Assessment on the Carlsbad Energy Center Project. Thank you for the opportunity to comment on this project, which is vitally important to the residents of Carlsbad and the region.

If you need clarification or have more questions, please do not hesitate to let us know.

Sincerely,  
Julie Baker  
William Kloetzer, PhD  
Arnold Roe, PhD  
Jacques Romatier  
**Power of Vision**

# Comments on the PSA

January 30, 2009

## Land Use

1. The Carlsbad City Council has always required applicant/developers to update master plans, site plan, specific plans, etc whenever a project impacts a planned area. This application is no different. It is a violation of LORS to allow NRG to avoid a complete update of Encina Specific Plan 144
  - a. CECP is an intensification of an industrial use which is against 98-145 Comprehensive Update of SP 144
  - b. Not an appropriate land use
2. The *South Carlsbad Coastal Redevelopment Area (SCCRA)* plan anticipated a smaller, more efficient, replacement plant, not a complete new facility as proposed by NRG. There is nothing in the NRG application that guarantees for the removal/demolition of existing units 1,2,3,4,5 and their related facilities. This is a violation of local LORS.
  - a. The SCCRA plan requires extraordinary public benefits for a new power plant. CECP does not meet this threshold. In fact, the benefits apply more to the region rather than the City of Carlsbad
  - b. SCCRA calls for redevelopment, not intensification. CECP is not an appropriate land use
  - c. A major redevelopment permit would be required of applicant. To not require such a permit is a violation of land use LORS within the SCCRA
  - d. A goal of the redevelopment plan was to decommission Encina, not build a second larger more intensive power plant running more often. A peaker plant was anticipated in the SCCRA.
3. Sensitive Receptors (residents) are .4 miles from project site, with an elementary school less than 1 mile from the site and the Coastal Rail Trail within several feet.
4. A power plant and its related facilities are incompatible with existing land uses when it creates unmitigated noise, dust or a public health or safety hazard or nuisance. Existing land uses are nearby residents and visitors to the beach.
5. A power plant and its related facilities restrict future uses of surrounding property. Future tourist-serving commercial will be unlikely to develop near an industrial use such as a power plant.
6. Impacts from CECP's use of ocean water are undetermined at this time. Request that those impacts be definitively determined before permit is issued.
7. We are disturbed by the CEC's acceptance of the Coastal Commission's decision not to participate in Application for Certification of the CECP as required by the Coastal Act Section 30413(d) and the Warren-Ahlquist Act, particularly since the applicant revised their application to include a desalination plant. We urge the CEC and CCC to comply with the law by having the CCC review the application.
8. CECP is not coastal dependant and therefore should not be located on the coast.
9. The project would cause a public nuisance by increasing air pollution, visual pollution, dust, noise and safety hazard
10. The project should be considered a new project, as it is an intensification of the existing land use.

## **Comments on the PSA**

January 30, 2009

11. CECP would preclude the public's enjoyment of adjacent coastal lands because of the noise, increased air pollution and general feeling of being at the beach-next-to-a power plant.
12. To suggest that because it is already industrial so we are going to allow for more, intense industrial use ignores the City of Carlsbad's efforts to Redevelopment the south coast for the benefit of residents, visitors and neighboring communities. Don't make ugly uglier
13. The Carlsbad City Council is the highest legislative land use authority in Carlsbad; elected by the citizens. To completely ignore, overlook and disregard their intentions for their own community is against LORS.
14. On Page 4.1-107, Noteworthy Public Benefits, the last sentence of this paragraph should be amended to read: "The total GHG emissions from the new units more than quadruples the current emissions from the three existing units and this can be viewed as a negative public benefit, even though there may be lower GHG emissions emitted per unit of electricity produced."
15. The Land Use section of the PSA makes no mention of the applicant's proposed desalination plant and new switchyard. Has the CEC failed to consider the desalination plant and switchyard in this portion of the PSA?

## **Visual**

1. There is no way to adequately mitigate the visual impact of CECP from the surrounding residents.
2. CEC should request from NRG: a) plot plans and artist's rendering of the proposed project without I-5 widening, but including the relocated switchyard and desalination plant; b) plot plans and artist's rendering of the proposed project with the most intrusive Caltrans I-5 widening plan, including the relocated switchyard, desalination plant and security/sound barriers. Enough information is available from CalTrans and for the Coastal Rail Trail to realistically plan for the I-5 widening. Failure to do so at this juncture could lead to unnecessary litigation later on. At the CEC workshop Jan 7-8, CEC verbally requested NRG to provide plans showing the effect of the worse case widening of I-5 on plant layout and visual screening, but no written request to this effect has been forthcoming from the CEC.
3. CEC must take into account the worst-case scenario of I-5 widening in determining visual impacts. When the berm and trees are removed the plant will be 60 feet, four-football fields in length immediately adjacent to I-5. Nowhere in the State of California is there a power plant immediately adjacent to a heavily traveled freeway.
4. Screening walls to prevent car/truck accidents will not be visually mitigatable.
5. Don't make ugly uglier. #1 rule in planning in Carlsbad.
6. Switchyard is proposed to be moved immediately adjacent to a hotel.
7. The blatant and purposeful disregard by the applicant for these issues provide sufficient reason to reject the application.

## Safety

1. CECP cannot be adequately protected in case of a fire or wild fires. The site is difficult to access for emergency responders. The lowered elevation of CECP will make it difficult for fire personnel to access. When I-5 is widened there will be not room for maneuvering large fire trucks.
2. Storage and transportation of aqueous ammonia is less than .5 miles from residents.
3. Transportation route for aqueous ammonia directly passes a hotel.
4. Transmission lines present a danger to residents in case of an earthquake.
5. Transmission lines present a difficulty to responders in case of an earthquake.
6. The internal workings of CECP are visible to I-5 motorists and possible terrorist activities
7. The internal workings of CECP are visible to railway tracks and possible terrorist activities
8. Page 4.1-25 of the PSA, Facility Operation states, "...CECP operation would not require new employees because...workforce would be provided by...workforce which operates the existing Encina Power Station". Elsewhere, the PSA states that the CECP will be remotely controlled from the existing Encina Power Station. NRG has made public statements promising that it will be shutting down the Encina Power Station in the near future. If so, how will the CECP be operated? Cal ISO has expressed concerns about the reduced reliability of having power plants remotely controlled. Will there be workforce always at the CECP site to detect anomalous operating sounds that cannot be heard in a remote operating center, or in the event that emergency situations arise impeding the rapid deployment of personnel from the Encina plant to the CECP site? Currently, personnel have to pass through two electrically operated gates and, possibly, two train barrier gates, to traverse from one plant to another. We therefore recommend that the construction of an independently staffed control room at the CECP be a CEC licensing condition.
9. Page 4.1-25 of the PSA states, "The Energy Commission 2007 Integrated Energy Policy Report (IEPR) forecasts increasing demand for electricity in the San Diego Region (CEC2007)" This conclusion is open to serious question in view of the marked downturn in energy consumption in the latter half of 2008 and projected further downturn through 2009. Figure 76 on page 123 of the CEC Energy Demand 2008-2018 Staff Revised Forecast (November 2007 CEC-200-2007-015-SF2) for the SDG&E service area illustrates what happens to peak demand during an economic downturn. During the milder 1999-2001 economic downturn peak demand dropped 25%, so we can anticipate a greater drop for 2008-2010, a drop that could exceed 1,500 MW in peak demand. This is roughly equivalent to six times the CECP incremental installed peak power capacity, and the system need for this lost 1,500 MW peak capacity may not appear for another ten years. The Warren-Ahlquist Act requires CEC to make *periodic* peak power demand forecasts, *at least* every two years. The 2007 forecasts are obviously out of date and we request that CEC revise their forecasts in order to determine the current need for the CECP.

## Air Quality

1. While it is true that CECP is more efficient per kilowatt-hour, it will run more often and therefore generate more air pollution than present conditions. Please reflect in document. Alternative statement: Air Quality Summary of Conclusions states: "Global climate change and greenhouse (GHG) gas emissions from the project are discussed and analyzed in Air Quality Appendix AIR-1. The Carlsbad Energy Center Project would replace a less efficient existing facility with lower emissions of carbon dioxide per megawatt hour..." which is correct. However, in the Summary of Conclusions of Appendix Air-1 (page 4.1-97) the misleading statement is made that "The Carlsbad Energy Center Project (CEPC) would replace less efficient existing units with lower greenhouse gas-emitting units. Accordingly, it would not result in a significant cumulative greenhouse gas impact". The facts are that, while the units which are being replaced have higher GHG emissions per megawatt hour, the new units probably will produce more than ten times as many megawatt hours per year as the old units, and will probably result in close to one million more tons of carbon monoxide being spewed into the atmosphere in our community. These unfortunate and misleading statements in the PSA have been picked up by NRG and published in a bulletin they distributed to the residents of Carlsbad.
2. The applicant has not been able to provide adequate mitigation for NOx. This must be determined before permits are granted
3. The new applicant's request for waivers which covers the transient load change implies that the plant cannot meet the 2ppm limit during load changes. The plant, which is described as a combination of peaking power and combined-cycle efficiency, should be able to meet the same limitations on Nox emissions (without waivers) as others peaker technologies.
4. The applicant should provide actual data of the same plant as proposed for this project and under the same modes of operations.
5. Please account for increase in greenhouse gas emissions; mitigation requirements and health effects on surrounding residents.
6. On page 4.1-28 of the PSA, the CECP Expected maximum annual emissions for NOx is shown as 72.8 tons and CECP is given credit for 32.9 tons/yr for shutting down Encina Units 1, 2, & 3. Both numbers are suspect and should be reviewed. The CECP expected emissions presumably are based on guarantees made by the equipment manufacturer, Siemens. However, it is not clear whether or not Siemens' guarantee applies to CECP's proposed stack height of 139 feet, set forty feet down in a depression. The emissions credit for shutting down the Encina Units 1, 2, & 3 comes from the SDAPCD's POCD, which used an average emissions from these units for the years 2002 through 2006. We have indicated to the SDAPCD that we question the choice of years for making this decision, and have requested data for emissions from these units for years 2007 and 2008. We also request that the District review the accuracy of the emission data for the years 2002 through 2008, as we believe that a much lower emission credit should be granted for shutting down Encina Units 1, 2, & 3. We further ask that CEC request from NRG copies of the hourly data logs showing the time of operation, power output, fuel consumption, and emissions for each of the Encina Units 1, 2, & 3 for the period 2002 through 2008 so that we may independently assess the accuracy of the annual emission pollution amounts used in calculating emission offsets attributable to shutting down Encina Units 1, 2, & 3.

7. On page 4.1-43, Staff has indicated that it cannot recommend the CECP until the applicant can show how it will offset PM10/PM2.5 and VOC emissions. CEC should require NRG to inform us on how they propose to meet these offset requirements. Furthermore, meeting these offset requirements should occur prior to issuance of the FSA, rather than by stipulation.
8. In Appendix Air-1 and elsewhere it is stated that the CECP project's permit limits operation to less than a 60 percent annual capacity factor, and therefore the project is not subject to the requirements of SB 1368 and the Greenhouse Gas Emission Performance Standard. Therefore, the permit for operation should indicate that if the CECP exceeds a 60 percent annual capacity factor in any rolling twelve-month period, then it automatically becomes subject to the requirements of SB 1368 and the Greenhouse Gas Emission Performance Standard.

## **Health**

1. The air pollution generated by the existing Encina Plant and the proposed CEC reside at a single location and, in terms of public health, should be considered as a single source. Since pollutants emitted at the source fail to meet existing state and federal public health standards, any new construction that does not fully rectify the ongoing threat to public health should be rejected.

## **Water Quality**

1. CECP should be required to obtain independent intake permits for their required use of ocean water in the advent of units 4 & 5 being retired.
2. Impacts from CECP's use of ocean water are undetermined at this time. Request that those impacts be definitively determined before permit is issued.
3. Please identify the Clean Water Act's restrictions on industrial use of water over 2 million gallons per day.
4. Verification of SOIL&WATER -4, -5, & -6 should be made prior to breaking ground, rather than the few days before operation commences.

## **Noise**

1. The Carlsbad Energy Center (CECP) has not been forthcoming in addressing realistic scenarios that influence noise pollution and view. None of the sound pollution analyses address the elevated levels of noise pollution that will result from constructing a security/sound barrier between widened I-5 and power plant(s).

## **Project Alternatives**

1. Adequately identify project alternatives. Existing infrastructure is only a benefit to the applicant, NRG, not the residents of the region. To dismiss viable alternatives because of existing infrastructure violates CEQA alternative requirements.



## **Comments on the PSA**

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2. Existing infrastructure is aging and much of it is scheduled to be upgraded, replaced or moved (switchyard) therefore diminishing the advantage of existing infrastructure.

## **Socio Economic**

1. City fees were not taken into consideration.
2. Viability of NRG to complete the project.
3. Question of viability of Excelon should they be successful in their takeover bid.

### **Power Plant Efficiency and Transmission System Engineering**

1. We question the applicant's choice of the Siemens units. Not only is there some question as to whether the Siemens units can meet pollution standards during ramping conditions, but also in light of the fact that the applicant is currently ordering the more efficient (and USA manufactured) GE units for other, out of state, applications. A difference of 0.3% in power plant efficiency between the Siemens and GE units is not insignificant and would result in an annual GHG emission reduction of at least 2500 metric tons. It would also be interesting for staff to examine the relative pollution emissions from the Siemens and GE units.
2. In Section 5.5 of the PSA, Transmission System Engineering, no explanation is provided by the applicant why unit #6 is independently connected to the Encina 138kV switchyard and unit #7 is independently connected to the Encina 230kV switchyard. There are no transformers and circuit breakers in the Encina switchyards that allow for load transfers between the 138kV grid and the 230kV grid. Therefore, it would seem that system reliability would be enhanced by bussing units #6 and #7 together at the CECF control center so that either or both of the high voltage grids can be supplied with power if one of the two units is inoperable.